



May 20, 2020

*Via electronic delivery*

The Honorable Jocelyn G. Boyd  
Chief Clerk/Administrator  
Public Service Commission of SC  
101 Executive Center Dr., Suite 100  
Columbia, SC 29210

Re: South Carolina Energy Freedom Act (House Bill 3659) Proceeding Related to  
S.C. Code Ann. Section 58-37-40 and Integrated Resource Plans for Dominion Energy  
South Carolina, Incorporated  
Docket 2019-226-E

Dear Ms. Boyd,

On behalf of Robert Guild, please find attached Sierra Club's second set of data requests to Dominion Energy South Carolina, Inc. We are submitting this request exclusively electronically due to COVID-19. We also ask that all records be produced electronically.

Please contact me with any questions.

Sincerely,

Francesca DiJulio  
Sierra Club  
50 F Street NW, Floor 8  
Washington, D.C. 20001  
[francesca.dijulio@sierraclub.org](mailto:francesca.dijulio@sierraclub.org)

**BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA  
DOCKET NO. 2019-226-E**

In re:

South Carolina Energy Freedom Act (House Bill 3659) Proceeding Related to S.C. Code Ann. Section 58-37-40 and Integrated Resource Plans for Dominion Energy South Carolina, Incorporated

**SIERRA CLUB'S SECOND SET OF  
DATA REQUESTS  
MAY 20, 2020**

Pursuant to R.103-833 of the South Carolina Code of Regulations, Intervenor Sierra Club, by and through undersigned counsel, serves the following data requests on Dominion Energy South Carolina, Inc. ("Dominion" or the "Company") in the above referenced docket. These requests are continuing in nature to the extent permitted by the rules of the South Carolina Public Service Commission and the South Carolina Rules of Civil Procedure.

**INSTRUCTIONS**

1. These requests should be regarded as continuing. If, after filing its initial response to the interrogatories and requests, the Company becomes aware of any information that would alter or amend any responses, please provide updated responses as additional information becomes available.
2. If a response to any of the attached requests requires any calculations, analyses, assumptions, or studies, please identify and provide copies of such calculations, analyses, assumptions, or studies—including all work papers relating thereto. For any analyses or calculations prepared

using electronic workbooks, please provide operational versions of those spreadsheets as well as all operational versions of all supporting workbooks used to develop inputs.

3. Produced documents should include originals and all other copies which are not absolutely identical as well as all drafts and notes (whether typed, handwritten or otherwise) made or prepared in connection with such documents, whether used or not.
4. With respect to requests for analyses or calculations that were prepared using electronic workbooks, please provide operational versions of those spreadsheets (i.e., with calculations active) as well as all operational versions of all supporting workbooks used to develop inputs.
5. Unless otherwise specified, all requests for documents herein pertain to the Company's South Carolina operations. Please ensure that all responses are specific to the Company's South Carolina service territory. Where South Carolina-specific data are not available, please provide an appropriate factor, method or percentage to allow for an accurate estimate of South Carolina-specific data to be performed.
6. If you consider any document to be privileged or protected from production, then you must:
  - (i) include in your response a list of documents withheld from production, (ii) identify each document by date, addressee, author, title and subject matter, (iii) identify those persons who have seen the document or who were sent copies, and (iv) state the ground(s) upon which each such document is considered privileged or protected.
7. Due to the current COVID-19 situation and most people working remotely, please deliver all responses to the following interrogatories and requests for production of documents **electronically** to:

Robert Guild  
[bguild@mindspring.com](mailto:bguild@mindspring.com)

Dorothy E. Jaffe  
[dori.jaffe@sierraclub.org](mailto:dori.jaffe@sierraclub.org)

### **DEFINITIONS**

1. The “Company” is defined to include both the Dominion Energy South Carolina, Inc. and any consultants or other agents that assisted in the development or preparation of the plan for electric distribution grid transformation projects.
2. “Communications” shall mean all oral communications and all written communications, including all “documents,” as defined below.
3. “Describe” means to state in detail each and every basis for the position taken or the statement made in response to the request and includes identifying each and every statement or document relied on and provide a copy of all such identified documents.
4. “Document” is defined to include all materials, of any kind or description, in any medium, regardless of where or how maintained or accessed (such as in or through official work or personal files, accounts, or devices). Documents include, by way of illustration only, correspondences, papers (including working papers), electronic mail (including any attachments), telegrams, facsimiles, notes, sound or video recordings, voice mail, minutes, memoranda, inter- or intra-office communications, diaries, daily logs, records, reports, studies, estimates, surveys, written forecasts, analyses, contracts, licenses, agreements, charts, graphs, indexes, database or other electronic records, statistical records, data sheets, data processing cards, computer printouts, computer discs, videotapes, motion pictures, agendas, meeting invitations, websites, intranet pages, and other electronic communications,

any notes or drafts relating to any of the foregoing, and any other documents of any kind in your possession, custody or control or to which you have access or known to exist..

5. “Identify,” “identification,” as used with respect to a person means to state the person’s full name and present address and his present or last known employment position and business affiliation if a natural person, and corporate or other status and address if not a natural person. “Identify” or “identity” when used in reference to a document means to state the following as to each document:
  - a. Its nature and contents;
  - b. Its date;
  - c. The date it was executed if different from the date it bears;
  - d. The name, address and position of its author or signer;
  - e. The name, address and position of its addressee, if any;
  - f. Its present location and the name, present address and position of the person or persons having present custody; and
  - g. Whether it has been destroyed, and if so, with regard to such destruction; (i) the date of destruction; (ii) the reason for destruction; and (iii) the identity of the person who destroyed the document.
6. “Including” means “including but not limited to.”
7. “Person” includes any individual, sole proprietorship, partnership, corporation, association, trust, statutory trust, joint venture, or other entity.
8. “You” or “your” means Dominion and its agents, employees, representatives, attorneys, experts, investigators, insurers, consultants, or anyone acting on behalf of Dominion.

## **DATA REQUESTS**

**Request No. 2-1.** Reference page 33 of the 2020 IRP, please provide an electronic copy of the “2014 Depreciation Study” referenced in Note 1 of the “Existing Long-Term Supply Resources” table.

**Request No. 2-2.** Reference page 41 of the 2020 IRP, please provide an electronic copy of the “EXCEL revenue requirements model” referenced in Section 5.c.ii. Methodology, in Microsoft Excel with all formulas and calculations intact.

**Request No. 2-3.** Reference pages 34 and 44 of the 2020 IRP, where page 44 states: “All plans include assumptions about expenses that will be required to meet ELGs for Wateree and Williams.”

- a. Identify, describe, and explain the cost estimates for the Wateree and Williams compliance with the Environmental Protection Agency’s (“EPA”) Steam Electric Effluent Limitation Guidelines (“ELG”).
- b. Include the estimated capital expenditures for flue gas desulphurization (“FGD”) wastewater treatment at both Wateree and Williams Stations.
- c. Include the estimated capital expenditures for modifications to limit or eliminate the discharge of ash transport water at Williams Station.
- d. Include estimates for both the 2015 final rule and the 2019 proposed rule.

**Request No. 2-4.** Reference page 50 and 51 of the 2020 IRP, please provide an electronic version of the “SCE&G Forecast of Summer and Winter Loads and Resources - 2020 IRP Update” tables, for all eight Resource Plans evaluated, in Microsoft Excel with all formulas and calculations intact.

**Request No. 2-5.** Provide the PROSYM input database used in the 2020 IRP analysis in a general computer readable format (i.e. text format, \*.csv format, etc.).

**Request No. 2-6.** Provide actual hourly generation by unit for 2018 and 2019, and hourly generation by unit from PROSYM outputs for 2020, 2024, 2028, and 2032.

**Request No. 2-7.** Reference page 33 of the 2020 IRP, for each coal-fired, gas-fired, nuclear, and gas turbine unit listed in the Existing and Proposed Long-Term Supply Resources table, please provide the following information:

- a. Minimum stable operating level (MW),
- b. Summer and winter season full load heat rate (FLHR) in Btu/kWh for all fossil generators,
- c. Fossil generator polynomial fuel consumption input-output curves in  $ax^2+bx+c$  format, where a, b, c are polynomial coefficients and “x” is the MW output. If this format is not available, please provide an average heat rate curve or incremental heat rate curve (Btu/kWh) for each generator,
- d. Fixed operations and maintenance cost (FO&M), \$/kW-y,
- e. Variable operations and maintenance cost (VO&M), \$/MWh,
- f. Costs for any major maintenance events based on hours and starts, if applicable,
- g. Start costs, \$/start,
- h. Start times, minutes,
- i. Minimum up or minimum down times, if applicable, hours,
- j. Ramp rates, MW-min,
- k. Forced outage rates by unit,

- l. Planned outage rates (%) or schedule, by unit,
- m. Maximum capability for providing regulation reserves, MW or percent of capacity,
- n. Maximum capability for providing spinning reserves, MW or percent of capacity.

**Request No. 2-8.** Reference page 33 of the 2020 IRP, for each hydro plant listed in the Existing and Proposed Long-Term Supply Resources table, please provide the following information:

- a. Indication of whether the hydro unit is a pondage reservoir or run-of-river generator,
- b. Maximum energy per month assumed in the IRP production cost simulations,
- c. Run-of-river available generation profile, if applicable,
- d. Minimum power production, if applicable,
- e. Maximum capability for providing regulation reserves, MW or percent of max capacity,
- f. Maximum capability for providing spinning reserves, MW or percent of max capacity.

**Request No. 2-9.** Reference page 33 of the 2020 IRP, for the solar generation plant listed in the Existing and Proposed Long-Term Supply Resources table, please provide the following information:

- a. List of all PPA Non-DER Program solar plants,
- b. Locations (latitude and longitude) of PPA Non-DER Program solar plants,
- c. DC and AC capacity (MW) for PPA Non-DER Program solar plants,
- d. Whether each PPA Non-DER Program solar plants is a single-axis tracking or fixed array,



- e. Hourly chronological solar profiles (MW) by plant used in the analysis, in \*.csv format,
- f. Approximate capacity of PPA DER Program, by county, or other location.

**Request No. 2-10.** Reference Section I of the 2020 IRP, pages 9-17, for the Demand and Energy Forecasts for the planning period, please provide the underlying chronological data used in the 2020 IRP production cost analysis, including but not limited to:

- a. Hourly chronological load profile used, in \*.csv format,
- b. Hourly chronological energy efficiency assumption used, in \*.csv format,
- c. Hourly chronological electric vehicle charging profile, in \*.csv format,
- d. Any assumed demand response program constraints (i.e. number of calls per year, duration of calls, etc.).

**Request No. 2-11.** Please provide fuel price assumptions used in the 2020 IRP production cost simulations, in \$/MMBtu units, for natural gas, coal, and nuclear fuel in the following format:

- a. Reference Section 5 of the 2020 IRP, page 44 Monthly gas price, for Low, Base and High price forecasts, in \*.csv format,
- b. Annual prices for coal and nuclear fuel, in \*.csv format,
- c. Assumed transportation costs by plant, in \*.csv format (if applicable),
- d. Minimum fuel offtake requirements (if applicable).

**Request No. 2-12.** Identify, describe, and explain how neighboring utilities and balancing areas (i.e. Duke Energy Carolinas, Duke Energy Progress East, South Carolina Public Service Authority, Southeastern Power Administration, Southern Company, etc.) were modeled for the 2020 IRP.

**Request No. 2-13.** Identify, describe, and explain how neighboring balancing area capacity was assumed available during peak load conditions, or whether they were assumed to provide capacity towards Dominion's reserve margin requirement.

**Request No. 2-14.** Please provide maximum import and maximum export assumptions for each neighboring balancing area used in the 2020 IRP analysis, as well as the technical maximum import and export limit on the transmission interties.

**Request No. 2-15.** Please provide hourly output profiles of imports and exports from the 2020 IRP PROSYM simulations, from each neighboring balancing authority, and associated price strips, or assumed costs, used in the IRP production cost simulations.

**Request No. 2-16.** Identify, describe, and explain the assumed discount rate and how it was derived.

**Request No. 2-17.** Identify, describe, and explain the operating reserves, spinning reserves, and regulation reserves used in the 2020 IRP production cost analysis.

**Request No. 2-18.** Identify, describe, and explain the Effective Load Carrying Capability (ELCC) and/or firm capacity counted towards the planning reserve margin for all PV and BESS resources. Please include all documentation, work papers, or calculations developed for these assumptions.

Respectfully submitted this 20th day of May, 2020.



on behalf of

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(803) 917-5738  
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**BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA  
DOCKET NO. 2019-226-E**

In re:

South Carolina Energy Freedom Act (House  
Bill 3659) Proceeding Related to S.C. Code  
Ann. Section 58-37-40 and Integrated  
Resource Plans for Dominion Energy South  
Carolina, Incorporated

**CERTIFICATE OF SERVICE**

I hereby certify that I have served the persons listed on the official service list for Docket No. 2019-226-E, listed below, a copy of the Petition to Intervene of Sierra Club via electronic mail on this day, May 20, 2020.

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